

Contextualising the cropmark record: the timber monuments of the Neolithic of Scotland

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Introduction

The Neolithic period is well known for its stone and earth monuments. However, the cropmark record and a small number of excavations demonstrate that monuments, in a variety of different forms, were also built of timber. Although timber monuments have been photographed from the air since aerial survey began in Scotland and, as a result, the National Monuments Record of Scotland (NMRS) holds a very rich record of these sites, there has not yet been any analysis or synthesis of this record as a whole. I hope to begin to remedy this through my PhD research which aims to identify and examine the Neolithic timber monuments of Scotland as a whole for the first time. This paper is a preliminary note following almost a year of research. My research, which is based at Glasgow University, is funded by the AHRC and is in collaboration with RCAHMS.

Methodology

The main aims of my research are to identify and gather together all the sites in the cropmark record of potentially Neolithic timber monuments, to provide a framework for the classification of Neolithic timber monuments, to investigate how these sites can inform our understanding of Neolithic Scotland and to assess the significance and purpose of the sites to Neolithic society. The first step towards achieving this has involved a complete search of the data and oblique aerial photographs held by the NMRS in order to identify all the sites recorded which may be Neolithic timber monuments and the creation of a database of these sites. The next stage, which is as yet only partially completed, involves the transcription of all the sites identified which will allow the detailed examination, analysis and comparison of sites. This will allow the beginning of a re-assessment of the current typologies. The next phase will begin to consider the context of the sites and will involve the identification of case study areas, field visits and fieldwalking of the sites within these areas and the examination of timber sites within their Neolithic context. It is hoped that this will aid the interpretation and understanding of the sites, but also begin to shed light upon the significance and purpose of these sites and their place within our understandings of the Neolithic.

Why?

So why look at Scotland's Neolithic timber monuments? There are several reasons. As mentioned above, there has been no analysis or synthesis of this record as a whole. Although there have been a few studies focused upon particular forms of site, such as cursus monuments (Brophy 1999) or pit-circles (Tolan 1988, Millican 2003), the Neolithic timber monuments recorded in Scotland have never been identified or examined as a whole. As a result, it is not known how many are recorded, where they are located or the character of these sites. This is despite the fact that Neolithic timber sites have been recorded since the very beginning of aerial survey in Scotland. Examples include the late Neolithic palisaded enclosure at Meldon Bridge, Borders (Figure 1) originally recorded by St Joseph (RCAHMS 1967), the cursus monument at Inchbare also a St Joseph (1976) discovery and Balbridie recorded during the first season of flying by RCAHMS in 1976 (Maxwell 1978). Although none of these sites were interpreted as Neolithic when first recorded, there is now a much greater understanding of the existence of timber monuments during the Neolithic period



Figure 1 The late Neolithic palisaded enclosure at Meldon Bridge (© Crown Copyright RCAHMS)

through a limited amount of research and a small number of important excavations. As a result we are in a much better position to interpret the cropmarks than when they first began to be recorded. However, any interpretation that has taken place has tended to focus upon typology and even here there are problems and inconsistencies with the typologies used resulting in ambiguity in the way in which many sites are classified. In addition, although a small amount of work has been carried out on some Neolithic timber monuments, there is a lack of coherence to this work and often a lack of follow-up. There have been only limited attempts to consider the archaeological significance of some of these timber sites or place them within wider Neolithic studies. Therefore an assessment and re-examination of the cropmark evidence of timber monuments and the manner in which they are interpreted is long overdue.

What are Neolithic timber monuments?

Although a small proportion has been discovered through the course of excavation, the majority of these sites are revealed by cropmarks. Only a small number have so far been excavated, therefore interpretation relies primarily upon morphology. As a result, there remains the possibility that some of these sites do not in fact date to the Neolithic period at all. Nevertheless, their superficial similarity to those sites we can quite securely assign to the Neolithic mean that until other evidence is forthcoming, it is reasonable to assume that they belong to the Neolithic period.

Neolithic timber post-holes are revealed on aerial photographs as sites defined by the cropmarks of pits. At present, it is possible to divide these sites up into several superficial categories: pit-circles, pit-defined cursus monuments, large later Neolithic palisaded enclosures, rectilinear structures and enclosures which are variously called timber halls, rectilinear pit-defined enclosures or mortuary enclosures, curvilinear pit-defined

enclosures, avenues and pit-settings and timber structures found below later barrows, usually termed mortuary structures. These structures span the whole breadth of the Neolithic period and will have had a variety of different functions. It is important to point out that the divisions suggested below are not intended to indicate function, but are simply a way of handling the material at present. Divisions between the different forms of site are not always as clear-cut as the individual terms would suggest and these are only superficial categories. These categories will be refined in the future.

Pit-circles

Turning to pit-circles first there are immediately problems of interpretation as, from the air, isolated circles of pits of modest size could represent either the remains of later prehistoric round houses or ceremonial timber circles dating to the Neolithic. A typical example is that of Torr Wood (Figure 2a). It is often only the context in which the sites lie that provide the clue as to how to interpret them. For example, some sites lie in apparent association with other monuments (Figure 2b) or are components of a larger site (Figure 2c). Some pit-circles can be interpreted as earlier structures below later barrows, for example the site at Eckford Mill (Figure 2d). The specific morphology of sites may also help interpretation. A few sites, though, still elude interpretation. This is a problem that I will have to tackle and it is hoped that my research will be able to construct a method of interpreting difficult sites such as these.

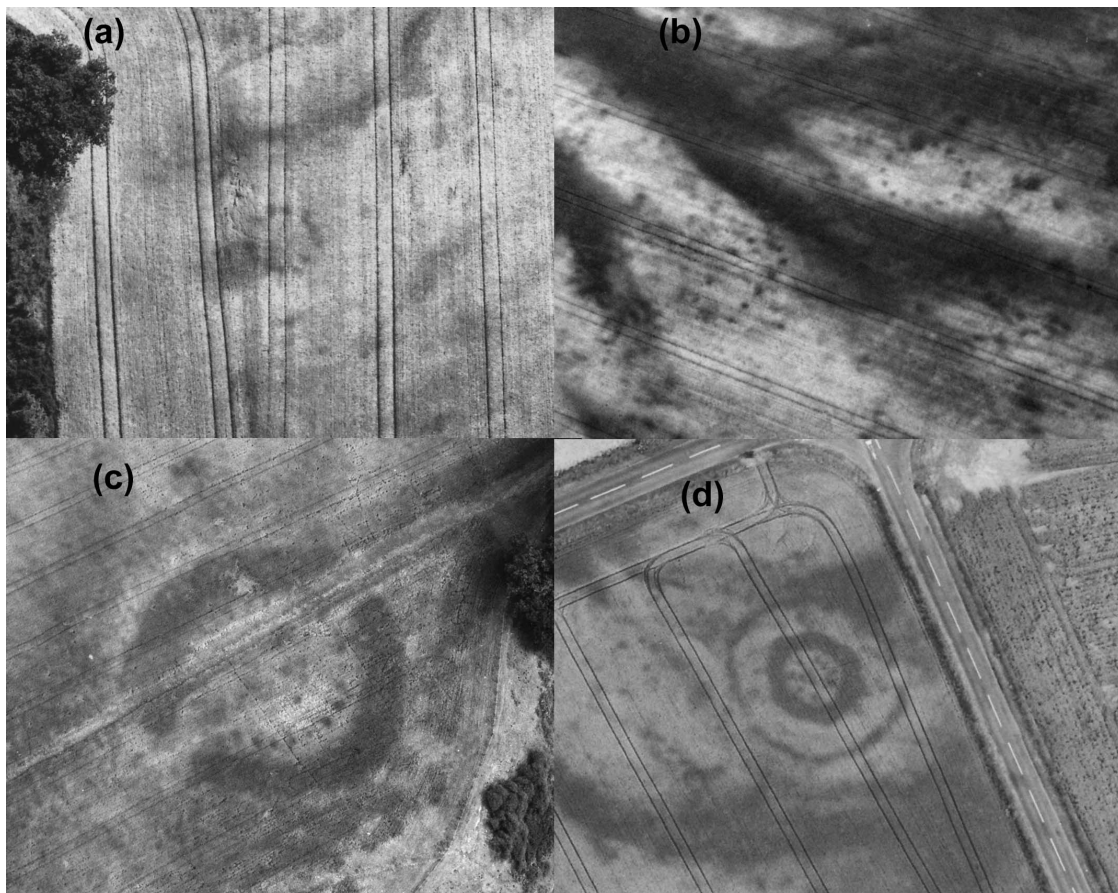


Figure 2 Pit-circles (a) Torr Wood (b) Carsie Mains (c) North Mains (d) Eckford Mill
(© Crown Copyright RCAHMS)

Pit-defined cursus monuments

A second type of timber monument is the pit-defined cursus monument. Examples include the sites recorded at Balneaves Cottage and Reedieleys (Figure 3). A number of these sites have been recorded in Scotland. On aerial photographs they appear as parallel alignments of pits, up to several hundred metres in length and enclosed at one or both ends, often with internal divisions. There are also a small number of sites recorded which are superficially similar to pit-defined cursus monuments but are not always classified as such. These include sites such as the Neolithic timber enclosures excavated at Douglasmuir in Angus (Kendrick 1995) and Castle Menzies in Perthshire (Halliday 2002). A certain amount of work has already been undertaken on cursus monuments in general and I hope to be able to build on this work.

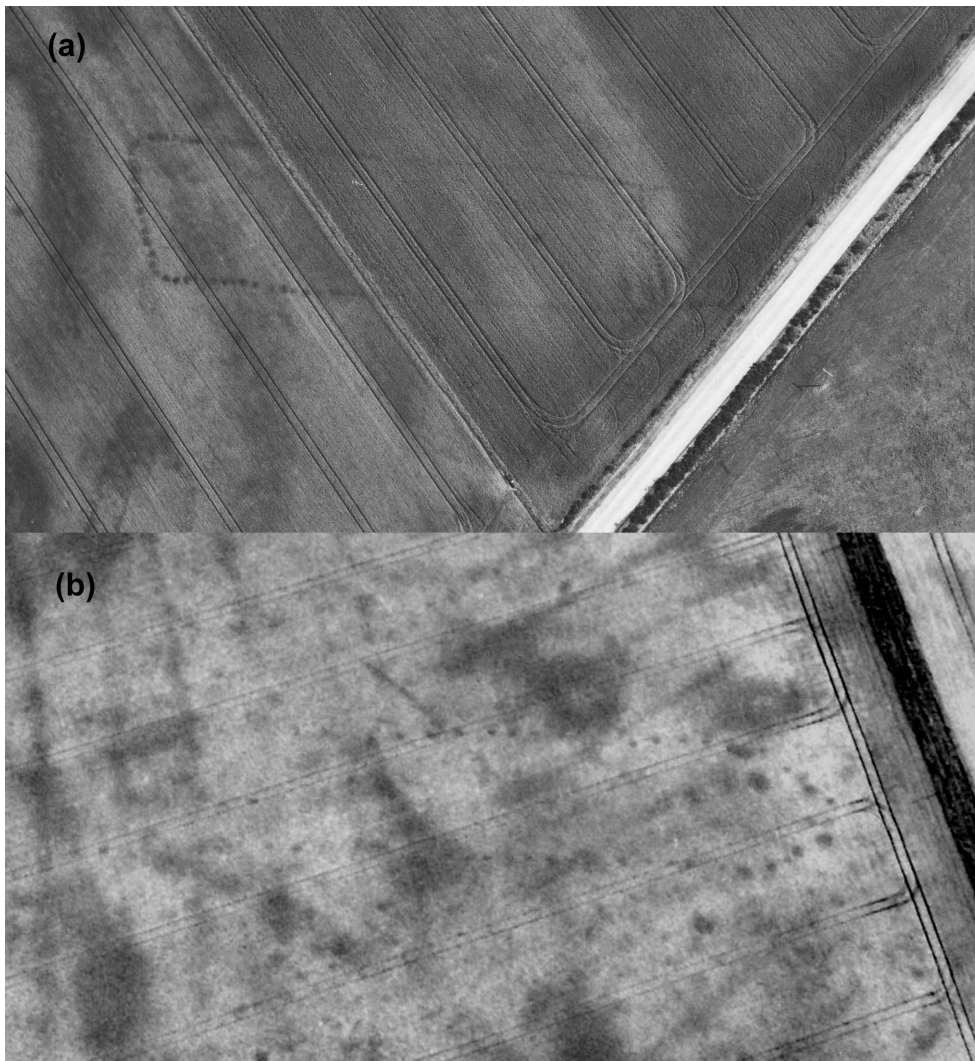


Figure 3 Cursus monuments (a) Balneaves Cottage (b) Reedieleys (© Crown Copyright RCAHMS)

Timber halls/Rectilinear pit-defined enclosures/mortuary enclosures

There is a group of sites recorded which are broadly similar but are variously called timber halls, pit-defined enclosures or mortuary enclosures. All are rectilinear in form and defined by pits. It is here that the terminology used begins to get quite confused. Similar sites are often given very different classifications and equally very different sites are

classified under the same terms. Examples include the cropmarks recorded at Balrae, Fortingall, Gilchrist and Millhill (Figure 4) and excavated sites such as the early Neolithic timber halls excavated at Balbridie and Claish Farm and the later Neolithic unroofed timber structures at Littleour, Carsie Mains (Figure 2b) and Balfarg Riding School. A variety of different sites are encompassed by these terms, which tend not to be applied with any consistency. My research aims to disentangle some of this confusion.

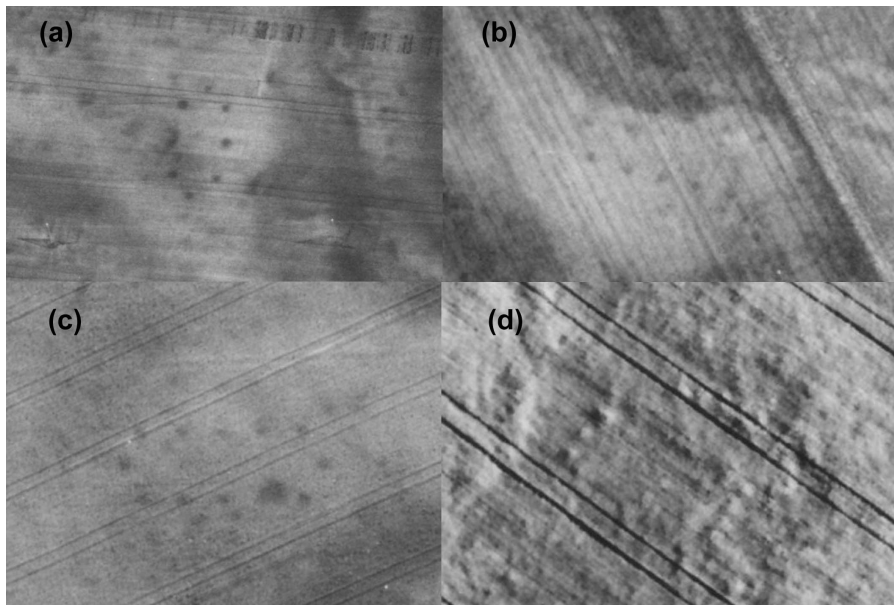


Figure 4 Rectilinear pit-defined enclosures (a) Balrae (b) Fortingall (c) Gilchrist (d) Millhill
(© Crown Copyright RCAHMS)

Later Neolithic palisaded enclosures

A small number of distinctive sites can be identified as later Neolithic palisaded enclosures. Four have so far been identified in Scotland; Dunragit (Figure 5), Forteviot, Leadketty and Meldon Bridge (Figure 1). These are large enclosures defined by massive individual posts with out-turned entrances defined by avenues of posts. From the air these sites appear as large enclosures defined by individual pits.



Figure 5 The later Neolithic palisaded enclosure at Dunragit (© Crown Copyright RCAHMS)

Curvilinear pit-defined enclosures

A relatively small group of sites can be identified as curvilinear pit-defined enclosures. Examples include the sites recorded at Hall of Aberuthven and Dunragit (Figure 6). Some bear a superficial resemblance to some of the rectilinear pit-enclosures or mortuary enclosures, others look like smaller versions of the larger palisaded enclosures, others look like very large pit-circles and there are some which cannot yet be explained. In many ways some of these sites are an unknown quantity, but their superficial similarity to some of the timber monuments which can be dated to the Neolithic means that they are forming part of my inquiry.

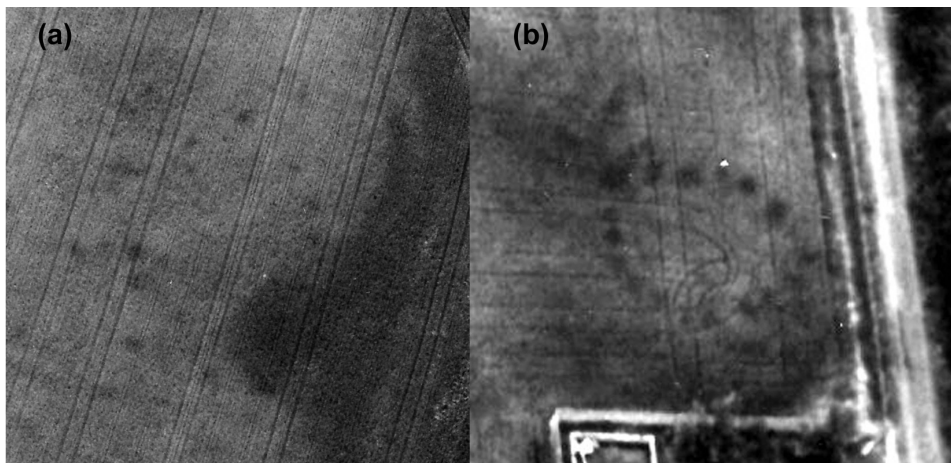


Figure 6 Curvilinear pit-defined enclosures (a) Hall of Aberuthven (b) Dunragit
(© Crown Copyright RCAHMS)

Avenues/pit-settings (Figure 7)

A small number of sites are classified simply as avenues or pit-settings. Avenues consist of an open-ended parallel pair of lines of pits, sometimes curving slightly. Pit-settings appear to come in a variety of forms, but generally appear to be shorter than avenues, consisting of two parallel lines of perhaps around three or four pits. These too are open-ended. Some look superficially similar to some of the sites also classified as pit-defined enclosures. A number of Neolithic sites are approached by avenues therefore it is possible that the avenues identified on aerial photographs originally defined an approach to a monument of some form.

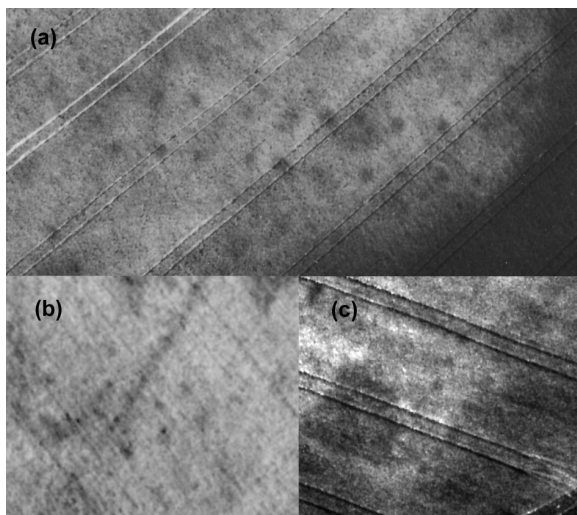


Figure 7 Avenues/pit-settings (a) Kirklands (b) Black Wood (c) Sprouston (© Crown Copyright RCAHMS)

Mortuary structures

The final type of timber monument being considering are structures over which later barrows or cairns were constructed, usually termed mortuary structures. These include sites such as the timber structures excavated below Pitnacree round barrow (Coles and Simpson 1965), Lochhill long cairn (Masters 1973) and Dalladies long barrow (Piggott 1973). These structures are generally not discovered through aerial photography, but usually through excavation and tend to be roughly rectilinear in plan.

Where are the Neolithic timber monuments?

A search through the NMRS has revealed that just under two hundred potentially Neolithic timber sites have so far been recorded as cropmarks. When sites recorded during excavation are added, this takes the number of sites to just over two hundred. When all these sites are plotted on a map (Figure 8), it is possible to see for the first time the distribution of sites

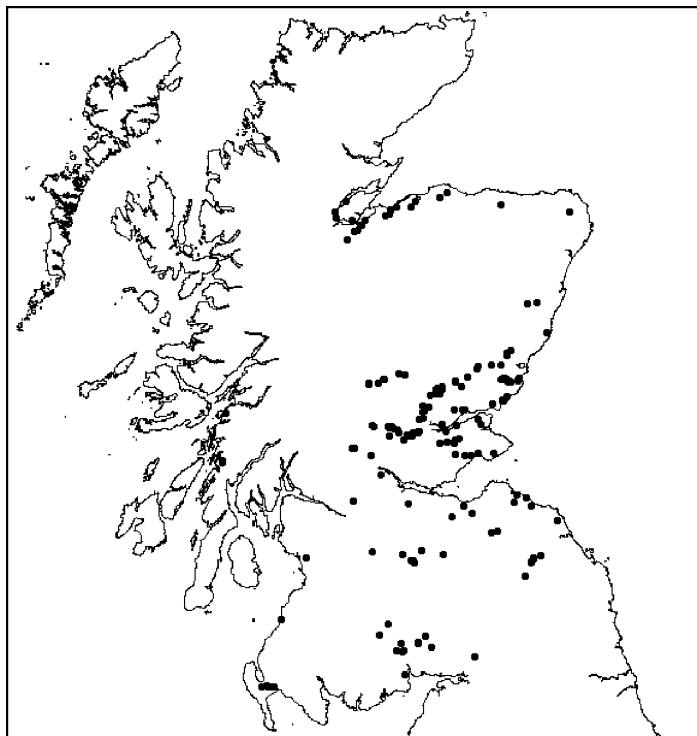


Figure 8 Distribution map of Neolithic timber monuments in Scotland

across the whole of Scotland. As would perhaps be expected, the distribution of sites does generally follow the pattern of flying by RCAHMS, that is with a largely eastern bias with a small concentration to the south-west. However, it is possible at this stage to pick out a few patterns within this distribution of sites. Firstly and perhaps most obviously there is a substantial concentration of sites in Perth and Kinross, far more than in any other region of Scotland. Although the expectation would be that a large number of sites would be recognised in this area as it has been well flown, the concentration of sites appears to be in excess of coverage certainly if compared with other parts of Scotland. Therefore, this does appear to be a genuine pattern and timber monuments do appear to occur more frequently in the east of Scotland.

In contrast, despite intense aerial coverage of East Lothian and the fact that we know that this area is densely populated by cropmarks, the number of sites recorded in this area is relatively low (Figure 9). It is certainly much lower than would be expected considering the dense aerial coverage of this region and in comparison with the number of sites found in Perth and Kinross. Indeed East Lothian is the most intensely flown area of Scotland because of its proximity to RCAHMS's base in Edinburgh and arable cultivation, which makes this relative absence seem even more obvious. This then may be another regional variation.

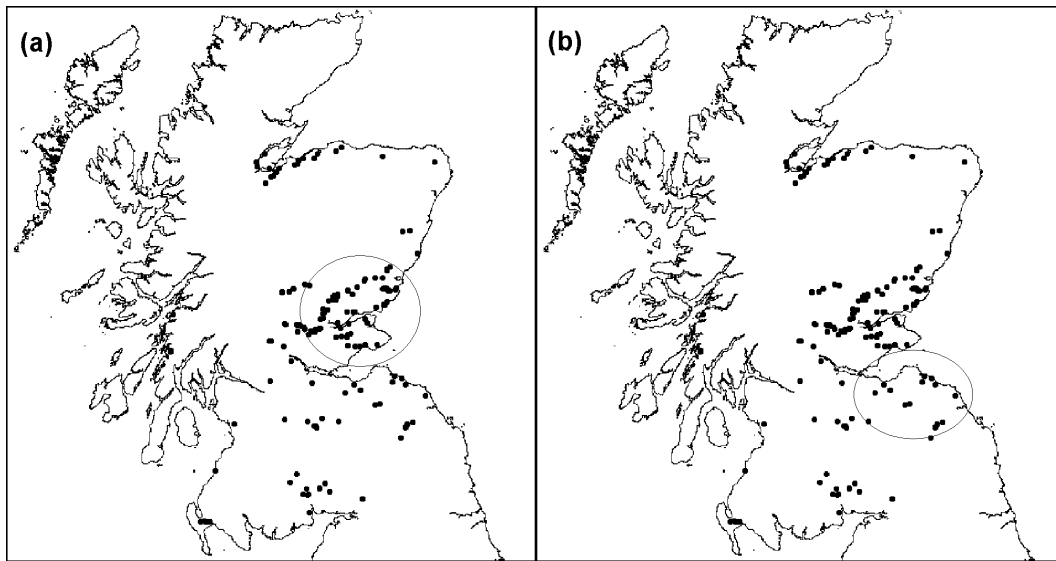


Figure 9 Patterns in the distribution (a) Perth and Kinross (b) East Lothian

Obviously, the distribution of cropmarks is a complex issue and there are many factors affecting where cropmarks are seen. Certainly the fact that several sites recently recorded in East Lothian (MacGregor and Shearer 2003) were not discovered as cropmarks but by excavation demonstrates that despite the dense aerial coverage of this area, we do not have a complete picture from the aerial record alone. However, the examples given above demonstrate that there are definite patterns in the distribution of timber sites in Scotland which will require to be explained and suggests that further analysis may reveal additional patterns.

Conclusions

My research so far has identified a wide range of timber sites which potentially date to the Neolithic period and some patterning in the distribution of sites can be identified. Although there are difficulties involved in working with this material, such as the problems with classification, timber monuments have the potential to add much to what we already know about the Neolithic period in Scotland. Ultimately, I want to move beyond simply collecting and classifying a group of sites to thinking about what they actually represent, that is significant Neolithic structures, and begin to think about issues such as what they were, what they looked like and functioned, how they fitted into Neolithic life and what they can tell us about the Neolithic way of life in Scotland and the people who used them. It is hoped that this research will open up and increase the understanding of a previously poorly-studied area of the Neolithic and help to begin to integrate it within our current understanding of the Neolithic period.

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Soilmarks

(defn: *not* crop marks, *not* crop-marks, *not* cropmarks)

RoboGEO

This may be a software solution for Canon users and others who cannot link a GPS directly with their DSLR. Their web site (<http://www.robogeo.com/home/>) notes that RoboGEO can write latitude, longitude and time to a file's EXIF file and can create ArcView shape files or DXF files of a track.

More flying GPS?

Sony announced their GPS-CS1 device that allows users to link time and location to their photographs. The link is not physical but via software and any potential purchasers should check carefully before buying because the small-print suggests that the software may only talk to Sony cameras. <http://www.sonystyle.com/is-bin> and search from there.

Culture 2000

There is a new address for the Culture 2000 Project European Landscapes; past, present and future website: www.e-landscapes.com.

(more on p 47)